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## COMPREHENSIVE ANALYSIS OF SELF-BUILD HOUSING EXPERIENCES

### Introduction

Self-build is consistent with the prevailing fiscal and policy environment which strongly favours low-cost strategies and, to a more limited extent, capacity-building approaches. It encompasses any range of housing activities in which there is an element of participation on the part of future occupants, specifically including the physical act of building, site acquisition and financing, architectural design and contracting. The self-build process can vary in scale from a simple project with minimal planning and regulation to a highly-organized group scheme with outside assistance. The products of self-build can range from a single provisional habitat to a multi-unit development of finished dwellings. By eliminating profits and numerous expenses at various stages of the procurement process, self-build can significantly reduce housing costs. Fundamental to this fact, however, is the investment of time and effort on the part of the participants to ensure the project success.

### Research Program

This research study focused on the development and application of a comprehensive analytical framework to evaluate self-build experience in both Canada and abroad. A practical tool was developed for the comparative analysis of self-build initiatives, a tool which could identify the major factors that contribute to the success or failure of any given self-build initiative. The focus of the research was on multiple-unit, urban examples which represent a relatively recent evolution in the self-build movement, one traditionally rooted in single and either rural or small-town applications. Thirty self-build initiatives were analyzed using the analytical tool and are profiled in the research report.

### Findings

Six categories were selected for use in the analytical framework as a method of classifying the factors that are essential to the success of an evaluated self-build initiative. These categories are: Organization, Financing, Design, Construction, Post-Occupancy, and Institutional Context. Each of the categories is comprised of five key factors which are necessary considerations in any self-build project that is to succeed in Canada. These factors, arranged according to category, are:





## **Organization:**

- A grassroots, community-based initiative draws support and contribution from the community, harnesses a broader array of resources, and provides higher levels of creativity and incentive.
- A self-build project organized with the primary objective of producing homes for the participants (as opposed to a project with the main goal of providing training or rehabilitation) has a greater chance of success at producing homes at reduced cost.
- The inclusion of a community development strategy (building a stronger community, consolidating an existing community, developing human capacity) builds a broader base of support for self-build initiatives.
- Self-build participants must form an organizational structure for the purposes of management, administration and decision-making for the initiative. Responsibilities of the organization include formulation of objectives, initiation of development, arrangement of financing, and selection of design.
- Successful self-build initiatives include as part of their organizational objectives a consensual agreement to a minimum post-occupancy tenure; in the absence of such an agreement, the mutual objective of housing production at reduced cost may be undermined by motives of speculation and profit.

## **Financing:**

- All self-build projects must have an approved source of capital or financing which covers not only planned aspects but also cost overruns and unforeseen contingencies.

- Although the financial plan of an initiative would be incomplete if the full range of available incentives (programs and tax breaks) were not investigated, the project must be able to proceed independently of government incentives.
- Self-build participants must determine, in advance, the extent to which lenders will recognize non-cash equity (owned land, self-build labour, donated materials) in assessing the lending value and amount of borrowing.
- A legal framework, such as exists in Canada, must be in place to provide an effective mechanism through which to pledge property to secure a mortgage.
- The financing of a self-build project depends, to a great extent, on the ability of the participants to meet the loan conditions of the lender (e.g., mortgage insurance, property pledge, minimum level of pre-sales in a development).

## **Design:**

- Any housing project, including self-build, must conform to national and local building codes.
- Any housing project, including self-build, must also conform to municipal zoning bylaws.
- Key aspects of the housing projects design concept are the approval of a design professional, the involvement of the self-build participants in the design process, the flexibility of the design, and ensuring that the design is in keeping with prevailing urban or rural patterns and in accordance with the tastes and desires of the self-builders.
- The project design must incorporate features specifically geared to a northern climate and prevailing regional norms.

- The design for the initiative must be subject to an economic feasibility study to ensure its cost effectiveness and to ascertain that the self-build aspect of the project's design represents a cost reduction over conventional build.

### **Construction:**

- For the housing venture to be valid as a self-build initiative, the participants must ensure that their project is both cost effective and that the labour and homeownership costs are reduced as a result of the participants' contributions to the construction process.
- The most preferable construction method chosen for the initiative will be one that conforms to local conditions.
- The self-build participants must supply or recruit the necessary labour skills so that the project can be undertaken and completed satisfactorily and within budget.
- The construction of an initiative can be executed successfully only if all required materials and tools are available locally or can be acquired easily and affordably.
- A mechanism for quality control is an essential component of any self-build initiative, whether such a mechanism is provided from within the ranks of the participants or from an external regulating body.

### **Post-Occupancy:**

- A successful initiative will satisfy two primary self-build objectives: the provision of homes for the people who participated in their production, and the provision of such homes at a lower cost than for homes built conventionally. Ideally, the affordability of the housing will have made homes accessible to participants who would otherwise not have been in a position to be homeowners.

- The housing produced by self-build initiatives, particularly in renovation projects, frequently contributes to the enhancement or regeneration of neighbourhoods, in aesthetic, financial and social respects.
- The organizational networks created by self-build initiatives, if maintained beyond project completion, can provide ongoing benefits of a managerial, financial and community-related nature to the participants (i.e., building management, municipal lobbying, conflict resolution, self-policing).
- If skills enhancement for the purpose of increased employability is an ancillary objective of the initiative, self-build participation can provide training and experience which may prove valuable to people who worked on the housing project either in management and administration or construction.
- Self-build initiatives produce housing that is deemed more satisfactory to the participants than homes built and purchased conventionally (i.e., higher degrees of quality and precision, higher levels of pride and satisfaction with results).

### **Institutional Context:**

- The existence of a supportive framework (government and non-government) greatly enhances the opportunities for success of a self-build initiative (i.e., formal recognition of self-build, existence of a system of housing finance, existing network of self-build organizations).
- Self-build participants will provide additional support and benefit to their initiatives when they research and access any sources of available technical assistance.



- Self-build participants should explore all possible sources of financial aid that may be available from different levels of government or from foundations.
- Although the support of community organizations can be highly beneficial to any self-build initiative, the initiative must be organized and financed so that it can function independently (i.e., in the absence of any such organizations).
- Self-build participants must ensure that their initiative is in compliance with all relevant government and industry housing regulations, including those governing the proper use of union and non-union labour, non-conventional building techniques, and self-build multi-unit projects.

## Conclusion

In conclusion, the authors of the report emphasize that the analytical framework developed to identify factors of success or failure in self-build initiatives both at home and abroad functions as a model which demonstrates the range of self-build factors worthy of consideration in Canada. The framework provides a checklist and a series of prompts intended to assist an individual or a group developing their own self-build initiative, and furnishes Canadians with proven factors which contribute to the achievement of a successful self-build initiative. The thirty self-build initiatives studied using the analytical framework reveal that, despite the perception that multiple-unit structures are more complex from a design and engineering standpoint, many self-build groups have successfully responded to this challenge.

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**Research Report:** Comprehensive Analysis of Self-build Housing Experiences

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A full report on this project is available from the Canadian Housing Information Centre at the address below.

## Housing Research at CMHC

Under Part IX of the National Housing Act, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research.

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